Chapter 5

Response to Public Comments on the EA

We received four letters in response to the EA For Comment during the 30-day comment period; these letters are included at the end of this chapter. To facilitate the response to these comments, each comment letter was assigned a number (labeled in the upper right-hand corner of the letter), and each comment was numbered (in the right-hand margin of the letter). The numbering system used the following format: 1-1 means letter number 1, comment number 1; 1-2 means letter number 1, comment number 2; and so forth. A response using the comment number was prepared for each comment, as shown below.

Table 5-1. Response to Public Comments.

Comment Number	Response
1-1	Your comment is noted. Table 3.1.1 has been revised. The EA acknowledges that grazing and logging activities can impact seedling regeneration (See 3.4, 3.6, and 3.17 pages 47, 49, 50, 57-59, and Appendix 5, page 8). Aspen regeneration can re-sprout after numerous impacts such as grazing and logging, as discussed in Chapter 3, page 5. Aspen regeneration in the Million Fire area is widespread and outside the area of ungulate concentration. Browsing is not expected to prevent aspen from regenerating in the burned area or harvest units. A previous small sale within the Million Fire area salvaged fire-killed timber. Aspen is regenerating successfully in this harvest unit. Also, previous small aspen harvests (2 to 15 acres) for wildlife in the area have not been negatively affected by ungulate browsing in the past. These stands now contain advanced aspen regeneration beyond the browsing height of ungulates.
1-2	Your comment is noted. See Section 3.18. See response to comment 1-1.
1-3	Depending on budget allocations, KV funds or appropriated funds may be used to fund tree planting. Future funding levels are never certain.
1-4	See response 4-42 and Section 3.5. The Alternatives achieve this Forest Plan Standard.
1-5	The appropriate MIS were used in this analysis. There are no MIS for burned forest habitats. The theory behind the use of MIS is to examine habitat type changes upon species influenced by changes in habitat composition, structure or function due to ecological process and/or human activities. A burned forest is an ecological process which influences habitat type but is not a habitat type itself. The MIS are indicative of the habitat type the area was before the fire. Now, the habitat type is early successional and is expected to become mature coniferous forest over time. Mule deer represent early successional stages and are a selected MIS species for this project. See the MIS Species analysis in 3.17 for a detailed discussion of the MIS analysis. The three-toed woodpecker is a snag dependent species and is addressed in the EA. TES species were addressed in the BE/BA.

Comment Number	Response
1-6	MIS have been selected as part of the MIS Amendment to the Forest Plan.
1-7	See Section 3.10. Section 2.5.6 has been revised. All gates on the roads providing access to the sale units will be closed during the sale operations and after the sale is closed the gates will be closed and locked which will restrict the access to the units. In a majority of the sale units, the slash and terrain is such that it will prohibit much of the off-road use. As with other areas on the forest, this area will be patrolled for any illegal off-road use. Violators will be cited.
1-8	The monitoring section 2.6, of the EA describes that sampling will be done through grab samples or other methods. The Forest Plan allows us to conduct monitoring using a variety of methods, from observations, traverses, spot sampling, to detailed and rigorous soil sampling. The Forest intends to use a full spectrum of available tools in monitoring soil compaction. Monitoring will be done in compliance with the Forest Plan, which identifies monitoring methods.
1-9	Section 3.5 describes that an estimated 1 to 2 percent compaction existed prior to the fire based on traverses. The 1 to 2 percent is included as part of the 90% soil impact. Compaction by itself does not exceed WCPH standards.
1-10	The Region 2 Handbook Supplement, 2509.18-92-1 must be considered in its entire context. Section 3.5 has been revised to clarify compliance with the policy and modeling of effects. When the Forest Service completes the salvage and mitigation measures, the total soil impact by area would be less than the current 90 percent soil impacts. The statement "...there was no attempt to quantify the short-term increase in erosion," needs to be viewed in the context of the discussion presented in Section 3.5 in its entirety. The Forest has conducted analysis that quantifies estimated erosion from the alternatives. This provides the needed basis for comparing alternatives. The statement you quoted refers to the erosion that could occur during the short-term activity of logging itself. This one to two week period cannot be effectively modeled since the WEPP estimates erosion per acre per year. To extrapolate to a week or two would be misuse of the model. Immediately after logging, a reduction in erosion is expected. This is due to the addition of slash that would trap erosion. We present erosion rates based on the estimated annual tons per acre per year and risk probabilities that the model reliably can produce. To estimate erosion in shorter timeframes would not be appropriate, so we made no attempt to quantify any erosion increases that might occur during the 2-week logging period on any given acre.
1-11	Section 3.5 correctly notes that severely burned soils account for 5 percent of the project area and are coincident with the soil erosion impact. The definition of severely burned is (from the Soil Management Handbook): "Severely burned soil is a condition where most woody debris and the entire forest floor is consumed down to bare mineral soil. Soil may have turned red due to extreme heat. Also, fine roots and organic matter are charred in the upper one-half inch of mineral soil."

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1-12	Section 3.16 has been revised to add a schedule for inventory and noxious weed control. An inventory of noxious weeds was conducted within the Million Fire area in June and July of 2003. Monitoring and treatment are expected to be effective in preventing noxious weeds from reaching damaging levels.
1-13	Generally, tree mortality can be predicted as a function of crown scorch, bark thickness, and root damage. Section 3.4 has been revised to include guidelines for salvage.
1-14	See Section 3.4. Incidental amounts of live trees will be harvested for skid trails and landings. Live trees are being protected where feasible.
1-15	Please note that the salvage area has been burned which has changed habitat conditions. See Section 3.17 and Appendix 3, Biological Assessment. The U.S. Fish and Wildlife Service concurred with the BA's determination that the proposed project May Effect, but is Not Likely to Adversely Affect lynx on October 14, 2003. LCAS requirements have been met. Also, see response 1-14. Less than 1 % of the undamaged trees will be harvested.
1-16	See Section 3.9. A small amount of salvage harvesting has occurred on private lands in the Willow Park sub-division within the Million Fire Burn area. These private lands are not located within the watershed analysis area for this EA. The extent of salvage harvest on private lands is not expected to have an adverse effect on MIS.
1-17	Your comments are noted. See responses 1-5, 1-8, 1-12, 1-15 and Section 3.17. There are no MIS for burned forest habitats.
1-18	See Section 1.2. Salvage of burned timber is only one of many objectives of this project. Some green sales in the region have been postponed to salvage dead and dying timber.
1-19	Your comment is noted. Activities having a high potential to cause unacceptable impacts are not proposed. The anticipated effects of the proposed activities are expected to be within the range discussed in the EA. The reference noted that 25% slope was a generalization that their study found. Potential impacts or additional risk from a 30% slope versus a 25% slope would be minor. The intent of the slope alternative is to limit logging in areas where slope would be high enough over a large area to increase impacts to an unacceptable degree.
1-20	As shown in Figure 3.9-4, ephemeral stream channels are limited within the salvage area, using USGS criteria and also by extension of those channels upstream (crenulations). The ephemeral channel shown extending into Unit D is primarily within a meadow area where no trees will be harvested. Forest standards and guidelines regarding tree harvest near stream channels will be followed.
1-21	Your comment is noted.
2-1	The Draft EA presents the estimated erosion rates and probabilities for salvage vs. no action, and includes slope differences (Ch 3 pages 11-12). Because of the many factors affecting erosion, a number of different erosion data are presented. In the example you cite (...a 3%

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	difference in erosion potential...), the 3 percent difference is actually the probability of measurable erosion occurring in the first year as shown in the column heading. This data should be interpreted in terms of probability. It demonstrates that given the soil type and localized climate for the Salvage Area, that in a given year there will be only a slight difference in erosion probability for those given slopes. This is likely due to the rainfall intensities for that area and suggests that the kind of storm we can expect for the area in the first 1.5 years will most likely control the amount of erosion rather than slope. Reviewing the estimated erosion amounts (Total Erosion for 30 Year Period Tons per Acre), there is considerable difference. The table shows there would be a 30-year cumulative soil erosion from 30-40 percent slopes of 14.18 tons per acre. This is compared with 10.98 tons per acre coming off of 20 to 30 percent slopes. From this cumulative standpoint, the model shows a 29 percent increase in erosion between 20-30 percent slopes and 30 to 40 percent slopes. Again, given the variability of the natural systems and WEPP limitations, there would appear to be a notable difference in erosion amounts.
2-2	Table 2.3-4 is a summary table. The table directs the reader to Chapter 3 for more information. A minor effect to water quality and yield is possible and noted in Table 2.3-4. This effect could be negative or positive. The reference to potential benefit to water quality from logging activity is based on modeling discussed in Chapter 3 suggesting reduced soil loss on logged areas. A reduction in runoff due to breakup of hydrophobic soil layers is a possibility described by a Washington State researcher (Megahan) and noted in the McIver and Star report. We agree that there is limited knowledge on the effects of post-fire logging, and that additional monitoring and research should continue.
2-3	See Response 1-13. Contracted administration will ensure that timber sale contract provisions are met.
2-4	We agree (see 3.17) but acknowledge that the bigger impact upon future bird species community diversity and composition is the impact created by the entire Million Fire. Also, additional snags (of larger size classes) will be marked within the sale units. Only about 6% of the burn area will be salvaged.
2-5	The Rio Grande National Forest welcomes public participation in its monitoring efforts.
2-6	Thank you for the information. District personnel will be monitoring the area to minimize cattle grazing encroachment.
3-1	Section 1.7 has been revised to remove the reference to 25% receipts.
3-2	See 4-37. The 25% funds is not an issue and will be changed in the final EA. See chapter 1 for the issues in this analysis.
3-3	The EA shows quantified comparisons for runoff and erosion rates. See Tables 3.5-3 and 3.5-4. The small difference in runoff rate and sedimentation expected downstream from the proposed

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	logged versus unlogged burn areas is discussed in Chapter 3. Direction in the 1996 Forest Plan revision (Chapter 3-Resource Protection Measures) was followed in analysis of alternatives for runoff and sedimentation impact. For runoff, *change* in percent *live tree basal area* is determined. Removal of 25% basal area in a watershed is the concern level that triggers more detailed assessment. Since few live trees (bark beetle infested) will be removed during this salvage operation of burned forest, this factor changes only slightly for the watersheds analyzed (noted in EA under Water Yield/Peak discharge section). In addition to this factor specified by Forest Plan direction, other site-specific characteristics such as hydrophobicity, ground cover, and compaction were discussed in the EA. Detailed modeling or prediction of differences in sedimentation rate between project alternatives is not specified in Forest Plan direction. Modeling (using "HYSED") to quantify sedimentation impacts from proposed projects was discontinued since it could not adequately account for natural variations between watersheds. Instead, as directed in the Forest Plan, the current approach is to quantitatively assess level of disturbance in a watershed and compare it to concern levels. Sedimentation potential in streams is determined in part by calculating percent of watershed area in an equivalent roaded area. The concern level specified in the Forest Plan Revision is 15%. In Table 3.9-1 of the Million Salvage EA, disturbance totals (including small sales and dozer fireline) are provided. This table is referenced on page 26 where it is noted that total disturbance in both 6th level watersheds is well below the concern level of 15% under the harvest alternatives.
3-4	Your comment is noted. Requirements will be appropriately specified in the contract.
3-5	Your comment is noted. The Forest Plan contains management prescriptions, and standards and guidelines, which are designed to minimize impacts.
3-6	Your comment is noted. Stump heights are restricted to mitigate visual impacts.
3-7	Section 2.5.2, (c and d) has been revised.
3-8	Reforestation for the entire burn area is being conducted with rehabilitation funds.
3-9	See Sections 3.5, 2.5.3b, and 3.9. Contour felling is an accepted method in the interagency Burned Area Emergency Stabilization and Rehabilitation Technical Reference.
3-10	Whole tree harvesting will be permitted, with the requirement that slash will be scattered throughout the harvest units. Section 2.5.5 has been revised. Slash will reduce soil erosion.
3-11	Your comment is noted. Rehabilitation of skid trails and other areas impacted by logging operations will be implemented as necessary.

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3-12	Your comment is noted.
3-13	Your comment is noted.
3-14	See Section 3.3. This standard comes from the Soil management handbook. These cover factors are desirable goals in ensuring that erosion is kept to minimal levels while the soil surface is moving toward recovery. The EA describes that "Because of the ignition of the surface organic layers, 90% of the slash would remain on site." The analysis refers to looking at what is currently on the site....very little woody material and no fine slash. The salvage is comparable to a clearcut, and therefore 90% of the fines should remain dispersed in the stand. The dispersal of this fine slash is one of the key elements, which will help reduce erosion by providing for dispersal of raindrop impact energy and by providing physical barriers to erosion. It also will return nutrients to the site for longer term decay and use by biota.
3-15	Your comment is noted. The proposed action will harvest approximately 6% of the burned area in less than 0.003% of the Rio Grande National Forest.
4-1	See Section 1.8. This action is limited to salvage and rehabilitation of a small portion of the burned area. No significant effects are anticipated.
4-2	See Section 1.8. A restoration alternative was considered but was eliminated from further study and does not meet the purpose and need for this action. See response 4-57. Many components of your proposal are already occurring independently of this salvage proposal.
4-3	Your comment is noted. See Sections 1.2 and 3.5
4-4	See Sections 1.2, 3.5, 3.6, 3.9, 3.17, 3.10, and 3.12. The project is limited to only a small portion the burn. The effects of the project are expected to be minor.
4-5	See Section 3.1, and 1.8. This project has complied with NEPA and all other applicable laws. The site-specific environmental consequences are discussed in this document. The best available scientific information was used.
4-6	See response 4-5.
4-7	See response 4-5.
4-8	Only a small portion of the burned area is affected by this project. More than 90% of the burned area will be allowed to recover naturally.
4-9	See Chapter 3.

Comment Number	Response
4-10	This comment addresses issues beyond the scope of this EA.
4-11	This comment addresses issues beyond the scope of this EA.
4-12	See Chapter 3. Salvage is not expected to have significant adverse effects and may provide some beneficial effects.
4-13	Your comment is noted.
4-14	This comment addresses issues beyond the scope of this EA. The Million Fire was determined to be man-caused.
4-15	This comment addresses issues beyond the scope of this EA.
4-16	This analysis complies with NEPA and manual direction.
4-17	See Section 3.18. Salvage logging can create a mosaic fuel pattern that contains fewer large diameter fuels than untreated areas.
4-18	See Section 3.18.
4-19	See response 4-4 and 4-5.
4-20	See response 4-42 and 3-3. See Section 3.5 and 3.9.
4-21	See Section 3.4. The project area is burned. The logged area is expected to regenerate to aspen. Some short-term species richness and biomass may be lost, but the long-term productivity of the site should not be affected. See response 4-5.
4-22	See Section 1.8, 3.1 and response 4-5.
4-23	See Section 3.5 and 3.9 for a discussion of soil and watershed effects. The nearest perennial stream and aquatic system to proposed operations is West Fork Shaw Creek. The significant buffer between proposed harvest Unit A and the stream is discussed in Chapter 3. No river crossings are proposed; therefore a discussion of that topic is not pertinent in the EA.
4-24	See Sections 3.5 and 3.9. All activities will comply with the WCP Handbook.

Comment Number	Response
4-25	Salvage operations were purposefully planned to avoid logging within intermittent or perennial stream reaches. Ephemeral stream channels are limited in the project area as discussed in Chapter 3 and shown in Figure 3.9-3. Also, see response 4-5. No new roads are proposed.
4-26	See Sections 3.5, 3.9, and 2.5. Also see response 4-5.
4-27	See Sections 3.5 and 3.9, table 3.9-1.
4-28	See literature citations after each section in the EA. See response 4-5.
4-29	This comment addresses issues and activities beyond the scope or not included in this project. See Section 3.11
4-30	Mitigation measures are discussed in Section 2.5. They are expected to be effective in reducing potential impacts.
4-31	All activities will be in compliance with the WCP Handbook, which is expected to be effective in minimizing potential impacts.
4-32	See response 4-30 and 4-31.
4-33	Fire intensity was considered in the analysis. The Beschta Report was considered in the analysis along with more recent research literature. The effects to soils are discussed in Sections 3.5 and 3.9. Monitoring of an adjacent salvage sale has shown that slash has reduced soil erosion. This project affects only a small portion of the burned area. Only roaded areas with low soil and watershed concerns are being salvaged. The remaining burned area will be left untreated. Also see response 4-5. All large trees will not be removed. Live trees and the required number of snags will be left to provide structure and habitat. Also, see Appendix 2 and Section 3.18.
4-34	The Beschta Report was considered. See Chapters Sections 1.8, 3.1 and Chapter 3. Also, see responses 4-5 and 4-33.
4-35	All live trees expected to survive will be marked or designated to leave, unless successfully attacked by bark beetles or located in a landing area or skid trail. See table 3.4-2 and Section 3.4.
4-36	This is a project analysis.
4-37	The scope of the economic and social analysis conducted for this analysis is appropriate and follows FSM 1970.6 guidance. The responsible official determines the scope, appropriate level, and complexity of economic and social analysis needed. The analysis is presented in Section 3.12. Ecosystem effects are included in the individual resource sections. Also see response 4-5.

Comment Number	Response
4-38	This analysis is in compliance with NFMA, NEPA, RPA, and MUSY. An adequate range of alternatives to meet the purpose and need of the project were analyzed. See response 4-5. The decision will be made in the Decision Notice. A no harvest alternative (Alternative 1) was analyzed.
4-39	See Biological Evaluation, Biological Assessment and MIS Species Analysis, Appendices 2, 3, and Section 3.17. The identification of MIS is done at the Forest Plan level. This project is minor and will not jeopardize the viability of any species.
4-40	See the cumulative effects under each resource area in Chapter 3. Also, see response 1-16, Section 3-17, and the BE/BA.
4-41	The comment that non-certified noxious weed free seed was used in rehabilitation is incorrect. Certified weed free seed has been required and used in rehabilitation of fire lines, Bare Area Emergency Rehabilitation, and Bare Area Rehabilitation Assessment work. A schedule for inventory and noxious weed treatment is provided in section 3.16. See response 1-12, 1-4 and 4-56.
4-42	See Section 3.5 and 3.9. See response 1-4, 1-8, 1-9, 1-10, 1-11 and 4-5. NEPA and NFMA regulations have been followed for this EA. -Grazing. See Section 3.15. -The 15% standard for detrimental soil disturbance was established in the Soil Management Handbook as a National Standard. The EA clearly explains Region 2 policy. See Section 3.5 page 8. FS Handbook 2509.13, the Burned Area Emergency Handbook does not define detrimental soils impacts or severely burned soil characteristics. See the Soil Management Handbook, 2509.18 and Region 2 Supplements. Severely burned soils are correctly defined in Section 3.5. -The impacts of firewood cutting, livestock grazing, off-road vehicle use, snowmobile use, or other human disturbances are documented in the EA. See Sections 3.5, 3.11, 3.10 and 3.15. -FS Handbook 2509.18 and Region 2 Supplements define soil displacement. According to the definition, soil displacement is not an issue in this project since the duff layer has been burned away. -Soil Nutrients are discussed in Section 3.5. See the literature review. The EA documents a standard to protect nutrients on site. The Forest Plan, to which this EA is tiered, contains extensive discussion of soil nutrients and the management necessary to conserve site nutrients. See FEIS, 1996, 3-282,283; 3-286,289). Nutrient levels are not quantified at the Regional or National level due to ecosystem differences and complexity of nutrient studies. -Erosion is quantified in Section 3.5. -The cumulative effects of soil impacts outside the activity area in described in Section 3.5. -Monitoring relating to soils is described in Section 2.6. Validation monitoring is generally coordinated through the research division of the Forest Service and is not a requirement. -This project is in compliance with the Forest Service Manual, laws, and regulations protecting the soils resource.
4-43	This comment addresses issues beyond the scope of this EA.
4-44	This comment addresses issues beyond the scope of this EA. No road construction or

Comment Number	Response
	reconstruction is planned for this project. There are no roadless area issues associated with this project.
4-45	The existing transportation system is being used to access the salvage units and there is no proposed road construction or reconstruction, so a roads analysis is not required. This determination is consistent with direction in the Forest Service Manual.
4-46	This comment addresses issues beyond the scope of this EA. See Sections 3-5, 3-9, 3.17, and Appendix 2.
4-47	The EA in Section 2.4 discusses the most pertinent standards and guidelines applicable to the project. Conservation practices (BMPs) outlined in the Region 2 Watershed Conservation Practices Handbook that will be used on the project area have proven effective in protecting soil, aquatic resources, and riparian areas in all types of projects. These measures will reduce potential for negative impacts from the proposed salvage, regardless of the burned condition. In addition to standard measures, additional mitigation techniques are described in Chapter 2.5 to address site-specific conditions of the burned area. See Section 3.9. The project is not located in a degraded watershed.
4-48	Increased erosion and sedimentation impacts within severely burned areas, including small ephemeral drainages, are expected and discussed in Chapter 3. Salvage operations were located away from stream channels of all types, including ephemeral, to minimize additional impacts due to logging operations.
4-49	Standards and guidelines to minimize contribution of sediment from roads are listed in the EA in Section 2.4. Lack of stream channels within the harvest areas is discussed in Chapter 3. Road maintenance and repair will be conducted as required by Forest Plan direction. See Section 3.11.
4-50	Cheeseman Reservoir is not within the analysis area for this EA.
4-51	See response 4-47.
4-52	T-walk analysis was not used in the project area due to its limited value in evaluation of ephemeral channels as discussed in Section 3.9.
4-53	Your comment is noted. See Section 3.9.
4-54	Your comment is noted. See response 4-34.

Comment Number	Response
4-55	The goal of Standards 1 and 2 is to prevent harmful increased runoff from project land units. Mitigation measures included in the Million Salvage project, including lop/scatter of slash and reclamation of skid trails, will immediately add ground cover towards this goal. The impact to runoff by the proposed salvage logging and associated mitigation is discussed in detail in Section 3.9. Also, see response 3-14.
4-56	This comment addresses issues beyond the scope of this EA. This project complies with the Water Conservation Practices Handbook. This suggested alternative was considered but eliminated from further study because it does not meet the purpose and need for this action. Many of these activities are already incorporated in the fire program, education program, BARA and other rehabilitation projects, and are outside the scope of this project. Other activities are included in Alternatives 2 and 3. See Response 4-2. Response to Purpose and Need suggested: 1. 90 % of the burn area will recover naturally or with minimal intervention. 2. Outside the scope of this analysis. 3. Economic opportunities will be provided through large and small timber sales. 4. Clean water and healthy watersheds will be maintained. See Chapter 3 and the BAER report. 5. Non-native weed surveys and control measures will be implemented. See EA, Section 3.16. 6. Outside the scope of this analysis. 7. The forest is working with local and national groups to conduct studies of post-fire logging effects. 8. Outside the scope of this analysis. The Forest has an ongoing education program. Weed Control: It is a Forest Plan standard to use weed-free stock feed. It is also a clause in all logging contracts that equipment (skidders, dozers, buncher-fellers, whole tree harvesting and other equipment) be washed prior to entry into the logging area. Survey and maps of noxious weed control has been conducted in June and July of 2003 and will continue for the next ten years. Hand application of herbicides is standard on this Forest

Acronyms used in this table: CDOW=Colorado Dept. of Wildlife; EA=environmental assessment; LTA=landtype association; MI=management indicator; MIS=management indicator species; RGNF=Rio Grande National Forest; RMBO=Rocky Mtn. Bird Observatory; TES=threatened and endangered species.